METHODS AND APPARATUS FOR DETERMINING TRANSMISSION POWER LEVELS

Abstract of the Disclosure

5

10

15

Methods and apparatus are provided for determining transmission power levels. The power characteristics of a cable modem family are determined by testing cable modems in a cable modem family with various downstream frequencies and transmission power levels to determine internal gain levels. The power characteristics of the cable modem family can then be stored in an efficient manner in each cable modem by using interpolation. The individual cable modem can then be characterized by testing the cable modem with a limited set of downstream frequencies and transmission power levels to determine an internal gain level offset for that particular cable modem. With the power characteristics table, internal gain level offset, and interpolation, transmission power levels can be determined during network operation when downstream frequencies and internal gain levels are known.